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FREE SAMPLE WORKSHEET

CLASS 9 SCIENCE – EXPLORATION



Chapter 1: Entering the World of Secondary Science

Name: _____ Class: _____ Date: _____

✨ Test Your Science Skills! ✨

Instructions: Choose or write the best answer.



1 Multiple Choice

What is the main purpose of a scientific model?

- A. To include every detail of a real system
- B. To simplify a complex system for study
- C. To replace all experiments
- D. To prove that an idea is always correct



2 Multiple Choice

Which of the following is most important when making a scientific prediction?

- A. Personal belief
- B. Guesswork
- C. Evidence and reasoning
- D. Imagination alone



3 Fill in the Blank

A simplified representation of a real system is called a scientific _____.



4 Multiple Choice

Why are standard units important in science?

- A. They make measurements comparable
- B. They make experiments unnecessary
- C. They eliminate all errors
- D. They make numbers larger



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5 True or False

Scientific predictions should be based on evidence and reasoning.

Answer: _____



6 Short Answer

What is the difference between an exact measurement and an estimation?



7 Application Question

A student wants to estimate how long it will take to cycle from home to school. She considers the distance and her average cycling speed but ignores the colour of her bicycle.

Why can the colour of the bicycle be ignored?



8 Multiple Choice

A scientific theory is best described as:

- | | |
|-----------------------|---|
| A. A random guess | B. A well-supported explanation based on evidence |
| C. A measurement unit | D. A personal opinion |



9 Think & Reason

A weather forecast predicts rain based on observations, measurements and scientific models. Later, new data suggests that less rain may occur.

Why can the scientific prediction change?

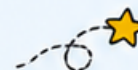


10 Challenge Question ★

You want to create a simple model to predict how long a bus will take to reach a museum.

Name TWO factors you would include in your model.

1. _____
2. _____





Chapter 1: Entering the World of Secondary Science



- 1 **B** — To simplify a complex system for study



- 7 The colour of the bicycle is not relevant to calculating the travel time.



- 2 **C** — Evidence and reasoning



- 8 **B** — A well-supported explanation based on evidence



- 3 **Model**



- 4 **A** — They make measurements comparable



- 9 Scientific predictions can change when new evidence or measurements become available.



- 5 **True**



- 6 An exact measurement aims to determine a quantity accurately, while an estimation gives a reasonable approximate value.



- 10 Possible answers: distance, average speed, number of stops, traffic conditions, etc.

Remember!

- Science is based on curiosity, observation, evidence and reasoning.
- Models help us understand complex systems by focusing on important factors.
- Predictions may change when new evidence becomes available.

